

**All American Metal Finishing Site Visit Report  
November 3, 2009**

Diane Dettling, EPA OSC  
Mark Woodke, EPA START  
Ron McNamany, EPA ERRS  
Brian Chernick, EPA ERRS  
David Amlin, Business Owner  
Robert Brown, Property Owner  
Jeff Humenik, City of Kent Fire Department

On October 23, 2009 the Washington State Department of Ecology's RCRA Program referred this site to EPA due to the concerns with the flood danger. On November 3, 2009 at 9am, the above individuals met at 926 5<sup>th</sup> Ave S Kent, WA. The building contains equipment from a zinc plating facility. This included process chemicals and waste typical from this industrial process. The facility discontinued production on September 3<sup>rd</sup>, 2009. In addition, the company had not shipped waste in 2009. The company owner indicated that the Dangerous Waste drums were being managed under satellite accumulation standards prior to production shut-down. The Special Waste on-site appears to have exceeded the accumulation time limit of 180 days. The business is trying to apply for an extension.

On-site treatment of the waste is a possibility. However, the fluid handling pump is broken and on-site treatment of remaining waste streams would not be feasible until repairs are completed.

While on-site we recorded the following information on the equipment and the waste being stored in it:

- 32 process tanks (approximately 21,620 gallons liquid)
  - o Tank #1 -600 gallons 30% Muriatic Acid (below pH 2.0) D002
  - o Tank #2 -700 gallons Muriatic Acid Rinse Tank (probably below pH 2.0) D002?
  - o Tank #3 -700 gallons Metal Cleaner 9% Sodium Metasilicate (pH 14.0) D002
  - o Tank #4 -700 gallons Metal Cleaner 9% Sodium Metasilicate (pH 14.0) D002
  - o Tank #5 -700 gallons Metal Cleaner 9% Sodium Hydroxide (pH 14.0) D002
  - o Tank #6 -700 gallons Metal Cleaner 9% Sodium Hydroxide (pH 14.0) D002
  - o Tank #7 -700 gallons Metal Cleaner Rinse Tank (pH ??) above 0.01mol/l = pH 12.0 D002?



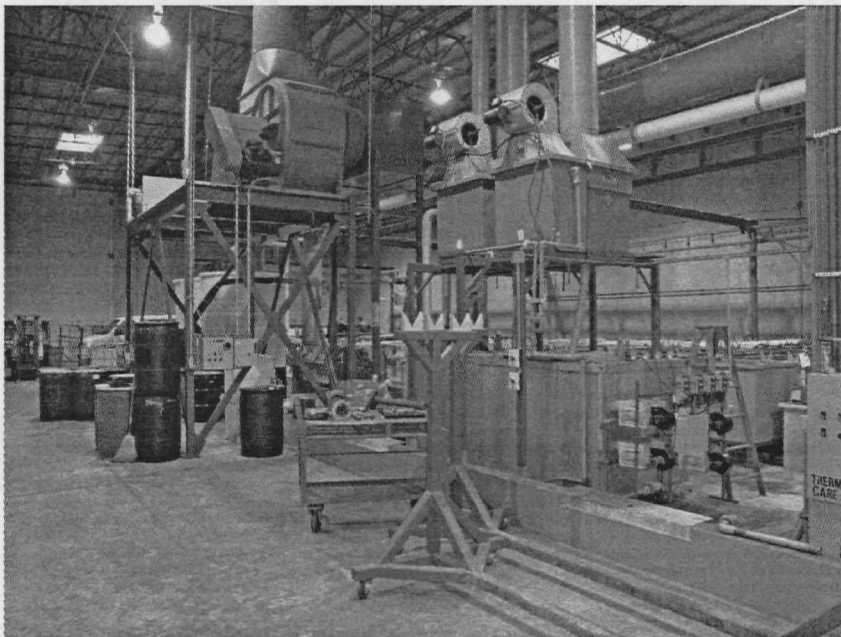
- Tank #8 -700 gallons Metal Cleaner Rinse Tank (pH ??) above 0.01mol/l = pH 12.0 D002?
- Tank #9 -700 gallons Metal Cleaner Rinse Tank (pH ??) above 0.01mol/l = pH 12.0 D002?
- Tank #10-750 gallons 13% Muriatic Acid (below pH 2.0) D002
- Tank #11-750 gallons 13% Muriatic Acid (below pH 2.0) D002
- Tank #12-700 gallons Muriatic Acid Rinse Tank (probably below pH 2.0) D002?
- Tank #13-700 gallons Muriatic Acid Rinse Tank (probably below pH 2.0) D002?
- Tank #14-600 gallons Muriatic Acid Rinse Tank (probably below pH 2.0) D002?
- Tank #15-100 gallons Rinse Water (Tank is Labeled as 10% Sodium Hydroxide)
- Tank #16-1,600 gallons Zinc Plating Solution 1% Zinc, 12% Sodium Hydroxide D002
- Tank #16A-160 gallons Zinc Generation Tank 1% Zinc, 12% Sodium Hydroxide D002
- Tank #17-1,400 gallons Zinc Plating Solution 1.5% Zinc, 12% Sodium Hydroxide D002
- Tank #17A-160 gallons Zinc Generation Tank 1.5% Zinc, 12% Sodium Hydroxide D002
- Tank #18 -700 gallons Zinc Plating Rinse Tank (pH??, Zinc Content??) D002?, WT02?
- Tank #19 -700 gallons Zinc Plating Rinse Tank (pH??, Zinc Content??) D002?, WT02?
- Tank #20 -700 gallons Zinc Plating Rinse Tank (pH??, Zinc Content??) D002?, WT02?
- Tank #21 -700 gallons Nitric Acid Pre-Dip Solution 0.25% Nitric Acid (pH 1.0) D002
- Tank #22 -700 gallons TRI V 121 (Chrome III) 3% Solution mixed 24 gal into 800 gal. D002
- Tank #23 -700 gallons TRI V 121 (Chrome III) Rinse Tank D002?
- Tank #24 -700 gallons TRI V 121 (Chrome III) Rinse Tank D002?
- Tank #25 -700 gallons TRI V 121 (Chrome III) Yellow Converter - mixed as Tank #22 D002
- Tank #26 -700 gallons TRI V 121 (Chrome III) Yellow Converter Rinse Tank D002?
- Tank #27 -700 gallons TRI V 121 (Chrome III) Yellow Converter Rinse Tank D002?

- Tank #28 -700 gallons TRI V 121 (Chrome III) Yellow Converter Rinse Tank D002?
  - Tank #29 -0 gallons Spray Rinse Tank (some residual salts)
  - Tank #30 -800 gallons Zinc Chro Shield mixed 40 gal. into 800 gal. WT02?
- 5 Tanks in Wastewater Treatment and Evaporation Area (3) Sump Pump Tanks (2) (approximately 2,650 gallons)
  - Boil Down Tank 1,000 gallons (WT02?)
  - Settling Tank #1 750 gallons Sludge (WT02) and Liquid WT02?
  - Settling Tank #2 800 gallons Sludge (WT02) and Liquid WT02?
  - 2 – Sump Pump Tanks 100 gallons Consolidated Liquid WT02? D002?
- Filter Cake Waste (approximately 1,800 pounds)
  - 2 – Filter Units (Process Vessels #16 and #17) West End (100 gallons) D002
  - 1 Drum (55 gallons, 500 pounds) D002
  - 3 – 5 gallon Buckets full of Filters D002
  - Waste Filter Cake under Filter Units (20 gallons) D002
- WT02 (Special Waste Sludge) (approximately 5,280 pounds)
  - 2 - Super Sacks on Pallets (1,640 pounds each)
  - 5 - Drums (55 gallons, 500 pounds each)
  - 1 – Filter Press Full of Waste (55 gallons, 500 pounds)
  - Waste Sludge under Walkways in Plating Area (100 gallons) 1,000 pounds
  - Pressure Wash Water from cleaning Sump Area (Unknown)
- Off Specification Product (1,030 gallons)
  - 3 – 275 gallon Totes Metal Cleaner (2 – 275 gallons; 1 - 220 gallons) 770 gallons D002
  - 2 – 55 gallon Drums Liquid Caustic Soda (1 – 30 gallons; 1 – 40 gallons) 70 gallons WSC02

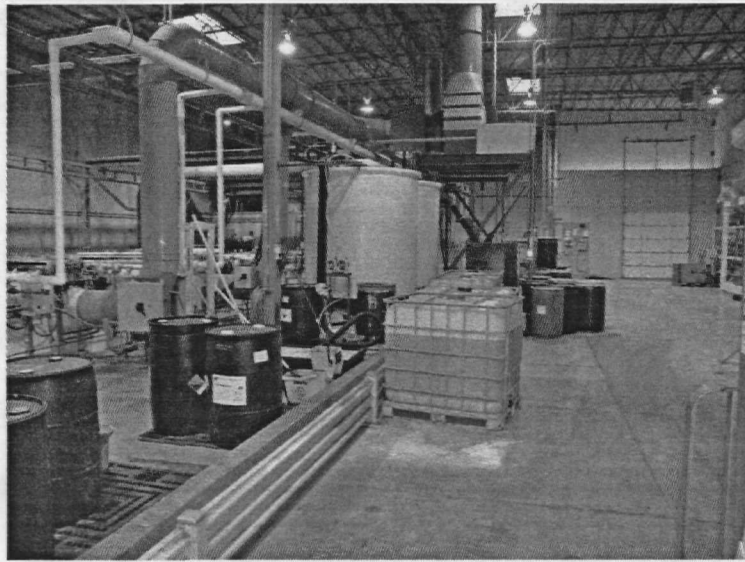
- 2 – 55 gallon Drums Zinc Chro Shield (1 – 55 gallons; 1 – 35 gallons) 90 gallons WT02?
  - 2 – 55 gallon Drums Cold Dip TRI V 121 ( 1 - 55gallons; 1 -30 gallons) 85 gallons WT02?
  - 1 – 55 gallon Drum Yellow Converter (1 – 15 gallons) 15 gallons WT02?
- Product
- 1 – 55 gallon Drum Sulfuric Acid (1 – 55 gallons)
  - 1 – 55 gallon Drum Liquid Caustic Soda (1 – 55 gallons)

### **Flood Concerns**

The building is located approximately 375 from the Green River (according to the business owner) and is at an elevation of 44 feet above mean sea level. The nearby levees are located at approximately 47 feet above mean sea level according to the business owner. The concrete containment wall inside the building is approximately 1.5 – 2 feet high and the majority of the chemicals remaining inside the building are located inside the containment wall (see the attached photograph 1). However, several chemical containers are located inside the building but not inside the containment wall (see photograph 2). At flows greater than 17,600 cubic feet per second, the facility would potentially be inundated with 2 – 3 feet of water. According to the Army Corp of Engineers, the probability that the levees would fail and Kent may flood is 1 in 25 this year.



Photograph 1: Containment Wall at All American Metal Finishing



Photograph 2: Containers Outside of Containment Wall